

Title (en)

Developer carrier having grooves on a surface thereof, developing device including the developer carrier, and an image forming apparatus including the developing device

Title (de)

Entwicklerträger mit Oberflächenvertiefungen, Entwicklungsapparat mit Entwicklerträger sowie Bilderzeugungsapparat mit diesem Entwicklungsapparat

Title (fr)

Porteur de révélateur avec des rainures superficielles, appareil de développement l'incorporant et dispositif de formation des images incorporant l'appareil de développement

Publication

**EP 1333338 B1 20080409 (EN)**

Application

**EP 03002505 A 20030204**

Priority

- JP 2002026842 A 20020204
- JP 2003000118 A 20030106

Abstract (en)

[origin: EP1333338A2] A developing device (4) for developing a latent image formed on an image carrier (1) with a developer includes a developer carrier (41) that carries the developer on a surface of the developer carrier (41). A plurality of grooves extending in a longitudinal direction of the developer carrier (41) are formed on the surface of the developer carrier (41), and unevenness (%) in depth of the grooves on the surface of the developer carrier (41) is +/- 30% or less. <IMAGE>

IPC 8 full level

**G03G 9/08** (2006.01); **G03G 15/09** (2006.01); **G03G 9/10** (2006.01); **G03G 15/08** (2006.01)

CPC (source: EP US)

**G03G 15/0921** (2013.01 - EP US)

Cited by

EP1840672A1; CN102739654A; US7389073B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**EP 1333338 A2 20030806; EP 1333338 A3 20040609; EP 1333338 B1 20080409**; CN 1251032 C 20060412; CN 1437078 A 20030820; DE 60320157 D1 20080521; DE 60320157 T2 20090514; JP 2003295599 A 20031015; US 2003170050 A1 20030911; US 6681092 B2 20040120

DOCDB simple family (application)

**EP 03002505 A 20030204**; CN 03103558 A 20030129; DE 60320157 T 20030204; JP 2003000118 A 20030106; US 35739303 A 20030204